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WHAT WENT WRONG WITH ARMS CONTROL?

Arms control has certainly gone off the tracks. For several years what are called arms negotiations have been mostly a public exchange of accusations; and it often looks as if it is the arms negotiations that are driving the arms race. It is hard to escape the impression that the planned procurement of 50 MX missiles (at latest count) has been an obligation imposed by a doctrine that the end justifies the means—the end something called arms control, and the means a demonstration that the United States does not lack the determination to match or exceed the Soviets in every category of weapons.

Despite the inflamed rhetoric on strategic weapons, there has not been much substance behind the ill will that followed détente. Nobody seriously believes that either side's capacity to retaliate after receiving a nuclear attack is, or is going to be, in sufficient doubt to make preemption a preferred choice in any imaginable crisis. Détente survived a U.S. war against an ally of the Soviet Union in Southeast Asia; it did not survive the Soviet war against Afghanistan. But the reprisals were mostly attempts to deny athletes, bread grains and pipeline equipment to the Soviet Union; one attempt failed and a second was reversed for the benefit of American farmers.

Poland became an issue, but of all the possible Soviet responses to an unacceptable condition in Poland the one that ensued was the gentlest that anyone could have seriously contemplated.

Furthermore, we have what ought to be an important source of reassurance, a "confidence-building" experience: 40 years of nuclear weapons without nuclear war. That certainly challenges any notion that nuclear war is inevitable. This is a reassurance that some advocates of disarmament do not like to have voiced, fearful that it might lead to complacency. But I

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want national leaders in a crisis to be complacent in the knowledge that nuclear war is so unlikely that initiating it is never prudent.

I see no reason to believe, as the Palme Commission concluded two years ago, that the threat of nuclear war is more ominous today than it has been for many years. I know of no way to reassure people who disagree, but there is no prudential wisdom in exaggerating the danger of nuclear war by an order of magnitude, as both sides of the political spectrum in this country have been doing for half a dozen years.

With those remarks as prelude, what follows is my interpretation of what has happened to strategic arms control over the past 30 years. I shall argue that the thinking on arms control was on the right track, and was effective, from the late 1950s to the early 1970s, culminating in the Anti-Ballistic Missile Treaty of 1972, but that things have derailed since. Maybe that loss of direction was natural and expectable, even inevitable. Even so, it is worth examining what went wrong.

II

The modern era of strategic arms control dates from the late 1950s. In 1957 the Gaither Committee examined the adequacy of U.S. strategic weapons and their deployment, and became alarmed at the vulnerability of the retaliatory force to surprise attack. Bombers were clustered, unprotected, on a few bases. Studies showed that Soviet bombers, too few to be identified by the Distant Early Warning Line, might be sufficient to destroy or disable our fragile aircraft, eliminating the prospect of the reprisal that was supposed to deter the attack in the first place. Announcement in 1957 of a Soviet flight test of an ICBM precursor further dramatized the vulnerability of a retaliatory force that offered only a small number of soft targets. The seriousness of bomber vulnerability was evidenced by the limited airborne alert during the last years of the Eisenhower Administration maintained to keep at least a small force safely in the air at all times.

It was agreed by President Eisenhower and Secretary Khrushchev that East-West talks on "measures to safeguard against surprise attack" should take place in the fall of 1958. It was not clear what they had in mind, but with a commitment to negotiations, the U.S. government had to collect its thoughts. A high-level group of officials met regularly and

ultimately educated itself that a surprise attack was the central problem of strategic-force vulnerability.

The Geneva negotiations were to involve five participants from the West and five from the East; representatives of Canada, Great Britain, France and the Federal Republic of Germany gathered in Washington in the fall of 1958. By the time the team went to Geneva, after a few weeks of discussion in Washington, strategic-retaliatory-force vulnerability had been identified as the surprise-attack problem, and indeed as the problem of nuclear war.¹

Nothing came of the negotiations on surprise attack (November-December 1958). But the occasion was crucial in identifying what was to become pivotal in arms negotiations for the next decade and, more important, in the design of strategic forces.

The large, above-ground, soft, slow-to-fuel Atlas missile was abandoned in favor of a new ICBM (intercontinental ballistic missile), dubbed Minuteman for its ability to fly instantly on warning. The navy's strategic future was assured with the development of the untargetable Polaris submarine. Secure, survivable forces were identified with what came to be called "strategic stability." Thus, in the event, the vulnerability problem was temporarily solved by unilateral action without any boost from arms control.

The idea that both sides could favor each other's strategic-force security was dramatized by Secretary of Defense Robert McNamara's testimony to Congress that he would prefer the Soviet Union to invest in secure, hardened underground missile silos, rather than soft sites above ground, because the latter both invited and threatened preemptive attack while the former would encourage patience in a crisis.

Two technological developments of the 1960s came to endanger this strategic-force stability: one was ABM, the other MIRV. Antiballistic missiles at that time were thought of primarily as for area defense of populations, not for point defense of military targets, and were seen as potentially destabilizing. What was worrisome was that ABMs might offer a strong

¹ An intellectual milestone was the publication of Albert Wohlstetter's "The Delicate Balance of Terror" in *Foreign Affairs*, January 1959. It had been available in manuscript to the Surprise Attack Team. My own "Surprise Attack and Disarmament," published in December in the *Bulletin of the Atomic Scientists* that same year, explicitly identifying arms control with reciprocally reduced strategic-force vulnerability, came out of those preparations for the Geneva negotiations.

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advantage to a first strike. The idea was that ABMs might work better when alert than when taken by surprise, might work poorly against a prepared attack but well against a damaged retaliatory force.

There was also the prospect that burgeoning defenses would require indefinite enlargement of the retaliatory force. Thus ABM systems deployed in both countries would make preemptive war more likely and the arms race more expensive. It was this conviction that led the Johnson Administration in 1966 to propose negotiations to forestall deployment of ballistic missile defenses.

The ABM treaty signed in 1972 had one characteristic that was incompatible with its philosophy but was probably a political necessity. The treaty was intended to preserve the efficacy of retaliatory forces by keeping them from being degraded by enemy defenses. Human and economic resources were hostages to be left unprotected. But ballistic missile defenses could also be used to protect military hard targets, indeed were generally thought superior in that mode of deployment. Land-based, fixed-site missiles were difficult and expensive to protect passively, by hardening or dispersing silos, while active defenses might have been cost-effective and compatible with the philosophy of the treaty, as long as there was a clear distinction between the technology of defending military targets and that of the forbidden defense of human resources. (This was acknowledged in the treaty provision allowing a very limited local active defense, a provision that in the end the United States chose not to take advantage of.)

I have always supposed that the disallowance of local hard-point defense was partly due to the difficulty of guarding against upgrading, either surreptitiously or upon abrogation of the treaty, but also partly for political simplicity. It might have been hard to convince the American public, which had its own reasons for disliking an ABM system, that exceptions should be made for air force assets but not for people.

The other development of the 1960s that threatened stability was the multiple independently targetable reentry vehicle (MIRV). A missile with ten independently targetable warheads is a replica of an air base with ten aircraft. If it takes one weapon to destroy ten weapons (or two or three to destroy them with confidence), MIRVed but targetable forces equal in size are reciprocally vulnerable to an attack by only a fraction of an enemy's force. (For retaliatory forces that cannot be

targeted, things that are hidden or mobile and cannot be found on short notice, the MIRV is merely an economical way of packaging warheads.)

There was no serious effort to constrain MIRVs until many years after a ban on ABMs became an objective in the Johnson Administration. The SALT II treaty signed in 1979 attempted to limit not only numbers of missiles but numbers allowed to be MIRVed.

That 15-year period from 1957 to 1972 is a remarkable story of intellectual achievement transformed into policy. Three books appeared in 1961 that epitomized an emerging consensus on what strategic arms control should be about. Each was a group effort, and each stimulated discussion even while being written. During the summer of 1960, Hedley Bull's manuscript, *The Control of the Arms Race*,² was circulated by the Institute for Strategic Studies in preparation for that institute's second annual conference. That same summer a study group met on the outskirts of Boston, and Morton H. Halperin and I produced a little book, discussed at numerous meetings of the Harvard-MIT Faculty Seminar on Arms Control during the fall of 1960, reflecting what we took to be a consensus, one that was wholly consistent with the ideas that developed around Hedley Bull's manuscript at the ISS.³ And in the spring of 1960, Donald G. Brennan organized a conference that generated *Arms Control, Disarmament, and National Security*.⁴

Together those efforts were an intellectual achievement; a number of participants in the Harvard-MIT seminar took positions in the Kennedy White House, Department of State and Department of Defense; others from RAND and elsewhere, who had been part of this intellectual movement, moved into the government as well. So it is not completely surprising that those ideas became the basis for U.S. policy and were ultimately implemented in the ABM treaty. I consider that culmination of 15 years of progress not merely the high point but the end point of successful arms control.⁵

² London: The Bradbury Agnew Press Ltd., 1961.

³ Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control*, New York: The Twentieth Century Fund, Inc., 1961, and reissued as a Pergamon-Brassey Classic, 1985.

⁴ New York: George Braziller, 1961.

⁵ Others would tell the story with more attention to the nuclear test treaty in 1963 or the nuclear nonproliferation treaty signed in 1969 and ratified in 1970. They were indeed important achievements but independent of strategic forces development.

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III

Since 1972, the control of strategic weapons has made little or no progress, and the effort on our side has not seemed to be informed by any coherent theory of what arms control is supposed to accomplish. Maybe right now there is nothing it can accomplish. But there has been retrogression in the doctrine.

A qualification needs to be added to this judgment that nothing constructive has happened. The five-year interim agreement governing offensive weapons that was part of the 1972 SALT I package was succeeded by the SALT II treaty of 1979, which was still unratified at the invasion of Afghanistan and never had a chance after that. Both sides have so far avoided going expressly beyond the limits contained in that treaty even though it has no formal standing. This is a powerful demonstration that restraints can be reciprocated without formal obligation.

One development since 1972 has been a hardening of the belief among diplomats and the public that arms control has to be embedded in treaties. In the 1960s, I used to believe that a tacit understanding might be arrived at regarding ballistic missile defenses: namely, that the United States would have to proceed at full speed unless the Soviets stopped in their tracks, but the United States would happily forego the cost of building an ABM system if the Russians put a stop to theirs. I saw no advantage in a treaty. I later came to believe that the advantage of the treaty was to put the quietus on ABM in this country, especially in the Congress. But reciprocated restraint may often be as good as formal negotiations and treaties, sometimes better. This idea was better understood up until a dozen years ago than it has been since.⁶

Let me illustrate how something that deserves to be identified as arms control can come about informally and even without being recognized as arms control by the participants. This is the apparent understanding that a war in Europe should be kept non-nuclear if possible, and that reciprocated efforts should be made to ensure this. Secretary McNamara began an aggressive campaign for building up conventional defenses in Europe on the grounds that nuclear weapons certainly should

not be used and possibly would not be used. (The no-first-use idea emerged later as a reflection of this same principle.) Throughout the 1960s, however, the official Soviet line was to deny the possibility of a non-nuclear engagement in Europe, even to deny that any nuclear war could be kept limited.

Yet the Soviets have spent enormous amounts of money developing non-nuclear capabilities in Europe, especially aircraft capable of delivering conventional weapons. This capability is not only expensive but utterly useless in the event of any war that is nuclear from the outset. It can only reflect a tacit Soviet acknowledgment that both sides are capable of non-nuclear war and interested in keeping war non-nuclear.

If "arms control" includes expensive restraints on the potential use of weapons as well as on their deployment, this reciprocated investment in non-nuclear capability has to be considered a remarkable instance of unacknowledged but reciprocated arms restraint. And it reminds us that the inhibitions on "first use" may be just as strong without declarations as with them.

IV

Until the emergence of a Strategic Defense Initiative (SDI) in 1983, for the last 13 years the focus of arms control has been on offensive weapons. I judge the proposals and negotiations on offensive weapons to have been mostly mindless, without a guiding philosophy. What guiding philosophy there used to be has got lost along the way.

The main difference between pre-1971 and post-1972 arms negotiations has been the shift of interest from the *character* of weapons to their *numbers*. In the United States this is the common interest that has joined left and right, leaving almost no room in between. The proposals of the Carter and Reagan Administrations have been for reduced numbers of offensive weapons. Simultaneously, the *programs* of the Carter and Reagan Administrations have been to match numbers. (This is matching in each category of weapons, not merely in some aggregate index of firepower.) Sophisticates in the freeze movement might talk privately about first-strike or second-strike weapons, about vulnerability and survivability, but the simple public goal has been freezing numbers and looking toward reduction. The last two administrations have been intent on matching hard-target capabilities, number for number, almost without regard to whether denying strategic-weapon targets to

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⁶ Kenneth L. Adelman, Director of the Arms Control and Disarmament Agency, has resurrected the notion that not all arms restraint has to be formalized. "Arms Control With and Without Agreements," *Foreign Affairs*, Winter 1984/85, pp. 240-263.

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the enemy—such as deploying untargetable weapons—was a superior alternative to matching hard-target capability.

Thus there are two points to discuss: the interest that everybody claims in ultimately reducing numbers through arms control, and the interest in matching enemy capabilities whether we like them or not.

On the "arms control" interest in reducing numbers, nobody ever offers a convincing reason for preferring smaller numbers. (I may exaggerate: saving money is a legitimate reason, and whether or not smaller numbers would cost less, people may be excused for thinking so.) And some people think that with fewer weapons there is less likelihood that one will fall into mischievous hands or be launched by mechanical error; this I think is incorrect, but may not be worth refuting because it is no one's main motivation. For the most part, people simply think that smaller numbers are better than bigger ones. Those who believe we already have ten times what we need never explain why having merely five times as many should look better. If people really believe that zero is the ultimate goal it is easy to see that downward is the direction they should go. But hardly anyone who takes arms control seriously believes that zero is the goal.

Furthermore, political and even professional discussion, to say nothing of editorial and popular discussion, has great difficulty in deciding which numbers matter. It is surprising how few people who concern themselves seriously with arms control are aware that the sheer explosive energy in American strategic weapons, the megatonnage of alert warheads, was several times greater 20 years ago than it is now. Not that gross megatonnage is the important measure; my point is merely that this is not an uninteresting fact, and people who are unacquainted with it may be people who really do not know (or do not care) what numbers they ought to be interested in.

In 1963 Lieutenant-General (then Colonel) Glenn Kent, of the United States Air Force, published an Occasional Paper of the Harvard Center for International Affairs in which he looked at the following question: if we were to have a limit of some kind on strategic missiles, what would be the most sensible limit? He argued that we should want both sides to be free to proliferate weapons in whatever dimension would reduce their

own vulnerability, but without increasing the other side's vulnerability. In those days missile accuracies were poor and megatonnage mattered more than today; big explosives, however, were less efficient than small ones because the lethal area was less than proportionate to the yield of the individual bomb or warhead. Kent concluded that the correct magnitude to limit was the sum of the lethal areas covered by all the warheads in the inventory; this would be calculated by using the two-thirds power of the yield of each weapon. In this formula, each party would then be free to proliferate smaller and smaller warheads on more and more missiles, thus becoming less and less vulnerable without acquiring any more preemptive attack capability. He further calculated that the weight-to-kill ratio went up as warheads got smaller, that the weight of the warheads would be roughly proportionate to the two-thirds power of the yields, and that no matter how many warheads were on a given missile, the physical volume of the missile would be approximately proportionate to that calculated index of lethality. And you could calculate the volume by looking at a missile from a distance, so monitoring would be easy.

Kent's specific formula may be somewhat obsolete technologically, but its virtue remains relevant; it attempts to answer the question, if you were to limit something, what would you want to limit?

The point of recalling Kent's investigation is that his question does not get the attention it deserves. In a very crude way, drawing a distinction between multiple- and single-warhead weapons moves in that direction; the Scowcroft Commission's advertisement for a single-warhead missile (Midgetman) to substitute ultimately for the MIRVed MX reflects a tardy and halting return to some inexplicit criterion in the spirit of Kent's proposal.

The SALT process tends to deal not only with numbers but with numbers in fixed categories. And the categories relate to things like land, sea and air, not strategic characteristics like susceptibility to preemption or capability for preemption, nor even relevant ingredients like warheads per target point, readiness, speed of delivery, accuracy or recallability after launch. The result has been that as fixed-site ground-based missiles have become more and more susceptible to successful attack (unless fired on warning), and as the SALT limits on MIRVed missiles invite building up to those limits, the process has moved exactly opposite to the direction that Kent pointed to.

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¹ On the Interaction of Opposing Forces Under Possible Arms Agreements, Cambridge: Harvard University Center for International Affairs, 1963.

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What has been lost is the earlier emphasis on the *character* of weapons, and what has taken its place is emphasis on *numbers*, and specifically numbers within *fixed categories*, categories having nothing to do with the weapon characteristics that most deserve attention.

The rigidity of the emphasis on categories is illustrated by the MX controversy. The Scowcroft Commission was in a quandary: it apparently found little or no military virtue in the MX but felt it necessary to demonstrate, to the Soviet government and to allied governments, that the United States was determined to spend money to overcome any strategic-weapon deficiency vis-à-vis the Soviet Union, and specifically an apparent deficiency in large land-based missiles. The MX was alleged to be the only missile ready for procurement; and since quick procurement was essential, the commission recommended 100 MX, with a longing glance at an economical single-warhead missile (Midgetman) that was not even under development. Bemused by the SALT tradition, their horizon in searching for appropriate weapons was short of the oceans; they appear not to have considered as an alternative the scheduling of some equivalent number of Trident submarines. Perhaps Tridents were not considered quite equivalent militarily to the MX; but since the object was a demonstration of resolve to procure, and not the particular characteristics of the MX, and because the Trident solved the basing problem that had vexed the Carter and Reagan Administrations for most of eight years, the Trident solution at least ought to have been considered. (If it was, it does not show in the commission report.)

What a strange product of an arms-control mentality—to constrain the United States to purchase one of the least attractive weapons (in terms of what arms control is intended to bring about) and to preclude the procurement of a secure, non-targetable undersea system instead. What a lost opportunity to announce that the United States would compete by procuring weapons of its own choosing, not by matching, category by category, whatever the Soviets chose to deploy. Instead, we have "arms control" for its own sake, not for the sake of peace and confidence.

Arms control for its own sake is similarly implicated in the widespread abhorrence of submarine-based cruise missiles. The cruise missile, as advertised, is an economical retaliatory weapon, too slow for preemptive attack, yet difficult to defend against as it penetrates Soviet air space, impossible to locate on

station because it can be based on submarines. It ought to seem a splendid answer to the problem of vulnerability in the retaliatory force. The widely voiced objection is a simple one. It is easy to hide; it can be got surreptitiously on board submarines. Because it can be fired from a torpedo tube and each submarine can have a reload capability, and because there are more attack submarines capable of carrying cruise missiles than any treaty limitation on the missiles would allow, there is no way to monitor a limitation on numbers of cruise missiles. The logic is that if you cannot find them you cannot count them; if you cannot count them you cannot have verifiable limits; if limits cannot be verified you cannot have arms control.

But who needs arms control if economical and reliable retaliatory weapons are available that are neither susceptible to preemption nor capable of preemption? There may be an answer to this question, but it has not been given. Again, arms control appears to get in the way of pursuing its own objective. Possibly there is some imperative in arms control to do something about offensive weapons, even when there is nothing constructive to be done; so something was done that could not be constructive and the result is confusion or worse. Possibly the first SALT agreement became a compelling model: Secretary of Defense Melvin Laird, after the signing of the SALT agreement, referred to it immediately as "SALT I," and looked forward to SALT II, freezing a procedural pattern with roman numerals. Perhaps the arms control bureaucracy nurtures itself on formal negotiations and ratified treaties, and has lost any subtlety it might have had. (Adelman's *Foreign Affairs* article is at least a hint at a less heavy-handed approach.) Perhaps an administration with no genuine interest in arms limitation finds in arms control the best pulpit from which to preach arms competition.

v

There is a separate development to weave into this story. Ten years ago, late in the Nixon Administration, secretaries of defense began to pronounce a new doctrine for the selection of strategic weapons. This doctrine entailed a more comprehensive target system than anything compatible with the McNamara doctrine. Its philosophical basis was that, if a war occurred, the president should have some alternative to mutual destruction, and the alternative proposed was a counterforce

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capability that could be operated purposively in a wartime environment, susceptible to control.

And there was a new strategic element: the threat of destroying a large part of the Soviet population and industrial capacity might no longer deter Soviet leaders, whose affection was for their own leadership and not for the people they served. The only effective deterrent threat might be the destruction of their entire military power base, including ground and naval forces. This required, of course, much larger and more versatile weapon capabilities for our forces.

The philosophy underlying the ABM agreement came under attack because it represented the mad notion that the only alternative to peace was mutual obliteration. The name of the strategy was abbreviated, and the acronym, MAD—Mutual Assured Destruction—has been brandished as a derisive slogan. Since 1964 the correct name of the strategy is not "assured mutual destruction," but "assured *capability* for mutual destruction," the difference being that the capability does not have to be ineluctably exercised at the outbreak of even an intercontinental nuclear war. The three crucial elements are an assured capability, restrained targeting and some capacity for war termination.

What has happened is that a capacity to maintain control over the course of war has come to be identified with a vigorous and extended counterforce campaign, while *retaliatory targeting* has been identified with what Herman Kahn used to call "spasm." The choice is presented as one between a counterforce campaign that is subject to control and a purely retaliatory campaign that is a total spasmodic response. I find it more plausible that the actual choice is between the two opposite alternatives. A controlled retaliatory capability seems to me supremely important, as these things go, and probably achievable, at least if somewhat reciprocated on the other side. But it is unlikely that "controlled" counterforce warfare on the scale typically envisioned could be sustained all the way to a termination that left populations and their economic assets substantially intact; indeed *uncontrolled* counterforce is probably what you would get.

But as long as the counterforce doctrine is governing, it will be hard to impose a reciprocal denial of substantial preemptive capabilities, since the capability to destroy hard targets, publicly eschewed by McNamara, has now become central to the doctrine. How this doctrine might be squared with arms control

has never been clear to me, but it probably explains why the current arms control framework has become the one within which the numerical arms race is driven.

I should note briefly that the bargaining chip idea has again become transparent. The Administration, the Scowcroft Commission, and even Congressman Les Aspin have all publicly averred that an initial MX program was essential to drive the Soviets to the bargaining table. No one has given an estimate of the likelihoods of successful disarmament negotiations with and without MX: if the prospect were ten percent without MX and 30 percent with it—a differential I find implausibly large—it could still be a bad bargain if it is not the weapon we want. The Administration has never been altogether clear whether the MX itself is a definitive program whose completion will lead to arms control, or is a contingent program whose abandonment is up for discussion. Publicly acknowledging that Soviet intransigence can oblige the United States to procure an expensive weapon of admittedly little or negative military utility is embarrassing.

Another debating strategy that attempts to make things better by first making them worse is publicizing the argument that any perceived inadequacy of U.S. strategic weaponry vis-à-vis the Soviet Union, or even a perceived lack of competitive determination on the part of the United States, would invite the Soviets to press hard in the next confrontation in the confident belief that the United States must back down, much as Khrushchev did in 1962. In the face of Soviet hubris over strategic superiority, the United States will have no choice but to back down—a situation that invites confrontation. This may be a good argument for more armament if Americans believe it and Russians do not. It is a dangerous one if Russians believe it and believe that Americans do too. I find no logic in the argument, but it is one of those that could be self-fulfilling in a dangerous way. The argument could easily have been neutered by an administration that saw the danger in it and did not itself rely on such arguments to bolster support for its programs. One hopes that the Russians know better.

VI

Finally we come to the Strategic Defense Initiative—President Reagan's dream of harnessing technology to provide impregnable defenses against ballistic missiles sometime in the future, making nuclear weapons obsolete and permitting nu-

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clear disarmament. How it can be thought that space-based defenses against ballistic missiles can completely deny the delivery of nuclear explosives to the proximity of U.S. population centers by land, sea and air, I do not know; but excusing the idea as an extravagance, let us try to see how the concept fits into arms control.

There is an easy way to fit it, even into the philosophy of the ABM treaty, but it is an interpretation that denigrates the President's dream and is nowhere near commensurate with the attention SDI gets. That is to argue that defending targetable U.S. missiles, like the MX, against preemptive attack through high-technology ABM is attractive and unobjectionable. It was a flaw in the ABM treaty that "good" ABM (protecting missiles) was disallowed along with "bad" (protecting cities). In consequence there is no way to protect the MX. A partial reversal of the ABM ban to permit defense of retaliatory weapons would bring us back to the McNamara spirit. This is a line taken by many defenders of SDI, although it is not clear to me whether it is an opportunistic rescue of ground-based missiles under the SDI umbrella, a minimally defensible foot in the door for SDI, a fillip to advanced research, or merely an attempt to rescue the President's image by showing that the concept of SDI, though overblown and oversold, is not quite empty.

There is, of course, the technical question of whether defenses good at protecting ground-based missiles are sufficiently distinguishable from defenses for population centers, so that rather than repairing the ABM treaty by inserting an exception we should be deciding whether or not to abandon it. There are so many interested parties with different interests that it is hard to find common ground even among those who share the same enthusiasm.

Let us leave aside the fact that cities are soft, unconcealable, and almost certainly unprotectable no matter how successfully ballistic missiles may be fended off, there being such a multitude of alternative means of wartime delivery or prewar positioning. There remains the question whether the President's dream is a good one.

He speaks of no longer depending on deterrence but of being unilaterally able to nullify any Soviet nuclear attack. Would we prefer to rely on defense, which is unilateral, or on deterrence, which is contingent and reciprocal? My question is whether we should wish away deterrence as the foundation of peace.

Those 40 years of living with nuclear weapons without warfare are not only evidence that war can be avoided but are themselves part of the reason why it can be; namely, increasing experience in living with the weapons without precipitating a war, increasing confidence on both sides that neither wishes to risk nuclear war, diminishing necessity to react to every untoward event as though it were a mortal challenge. I go further than that: a prudent restraint from aggressive violence that is based on acknowledgment that the world is too small to support a nuclear war is a healthier basis for peace than unilateral efforts to build defenses. I like the notion that East and West have exchanged hostages on a massive scale and that as long as they are unprotected, civilization depends on the avoidance of military aggression that could escalate to nuclear war.

Most of what we call civilization depends on reciprocal vulnerability. I am defenseless against almost everybody that I know, and while most of them would have no interest in harming me there must be some that would. I feel safer in an environment of deterrence than I would in an environment of defense. It is often said that terror is a poor basis for civilization, and the balance of terror is not a permanently viable foundation for the avoidance of war. Fear can promote hostility, and fear can lead to impetuosity in a crisis. I agree, but I do not equate a balance of deterrence with a balance of terror, even though the roots of "deterrence" and "terror" are the same. Twenty years ago I wrote and still believe:

The extent of the "fear" involved in any arrangement—total disarmament, negotiated mutual deterrence, or stable weaponry achieved unilaterally by conscious design—is a function of confidence. If the consequences of transgression are plainly bad—bad for all parties, little dependent on who transgresses first, and not helped by rapid mobilization—we can take the consequences for granted and call it a "balance of prudence."⁸

People regularly stand at the curb watching trucks, buses and cars hurtle past at speeds that guarantee injury and threaten death if they so much as attempt to cross against the traffic. They are absolutely deterred. But there is no fear. They just know better.

⁸ Thomas C. Schelling, *Arms and Influence*, New Haven: Yale University Press, 1966, p. 259.